

REMARKS

Applicant respectfully requests reconsideration of this application.

Claims 1-3, 5-13, 23 and 25-27 are pending in this application.

No claims have been cancelled.

No claims have been added.

No claims have been amended.

Claims 1-3, 5-7, 11, 13, 23 and 25-27 were rejected under 35 U.S.C. §102(e) as being unpatentable over U.S. Patent No. 6,410,981 issued to Tao (hereinafter referred to as "Tao").

Claims 8-10 were rejected under 35 U.S.C. §103(a) as being considered unpatentable over Tao, alone.

Claim 12 was rejected under 35 U.S.C. §103(a) as being considered unpatentable over Chung in view of a subset of pages provided by the Examiner of a book entitled "Electronic Packaging and Interconnection Handbook" (copyright 1991 by McGraw-Hill) in which a Charles A. Harper is listed as the editor in chief (hereinafter referred to as "Harper").

35 U.S.C. §102(e) Rejection of Claims 1-3, 5-7, 11, 13, 23 and 25-27

The Examiner has rejected claims 1-3, 5-7, 11, 13, 23 and 25-27 under 35 U.S.C. §102(3) as being considered to be anticipated by Tao. Applicant respectfully submits that claims 1-3, 5-7, 11, 13, 23 and 25-27 are not anticipated by Tao, because Tao does not teach each and every element of Applicant's invention as claimed.

Specifically, regarding independent claims 1 and 23, Applicant respectfully submits that Tao does not teach sealant disposed between the substrate and the lid in a pattern with at least one break in the pattern remaining

subsequent to the substrate and the lid being assembled together. Tao does teach having at least one groove in cap 1 (as shown in Figures 1, 2a and 2b of Tao), at least one groove in strengthening ring 2 (as shown in Figures 3, 4a and 4b of Tao), or having a strengthening ring 20 made up of multiple segments 20a (as shown in Figures 5a and 5b). There is no discussion anywhere within Tao of any breaks in the pattern of adhesive 7. Therefore, in Chung, gaps in the sealant (or "adhesive") are not taught, at all.

With regard to claim 6, the Final Office Action makes reference to Figure 5a of Tao while stating that "Tao shows that sealant is disposed between the lid and the substrate is a substantially rectangular patter with at least one break." Also, with regard to claim 7, the Final Office Action states that "Tao shows that the rectangular pattern has four breaks, one in each side of the substantially rectangular pattern." Applicant respectfully submits that these statements in the Final Office Action regarding claims 6 and 7 are in error. The discussion of Figure 5a of Tao, starting at line 46 in column 4 in Tao (which begins with an errant reference to a "Figure 5" instead of Figure 5a), makes clear that Figure 5a depicts a strengthening ring 20 made up of multiple strengthening ring segments 20a. Again, as already stated, there is no discussion anywhere within Tao of any breaks in the pattern of the sealant (i.e., "adhesive 7" in Tao). Applicant further respectfully submits that similar statements in the Final Office Action regarding claims 25 and 26 are also in error for the same reasons just discussed with regard to claims 6 and 7.

Also regarding independent claims 1 and 23, Applicant respectfully submits that Tao does not teach having thermal attach disposed between the inner surface of the lid and the die. The text of Tao (e.g., lines 5-10 of column 4)

discloses only adhesive between the inner surface of the lid ("cap" in Tao) and the die ("semiconductor chip" in Tao).

Claims 3, 5-7, 11, 13 and 25-27 variously depend, either directly or indirectly, from claims 1 and 23, and therefore, incorporate all of the limitations of claims 1 and 23.

For at least these reasons, Applicant respectfully submits that claims 1-3, 5-7, 11, 13, 23 and 25-27 are patentably distinguished over Tao, and are in condition for allowance.

35 U.S.C. § 103(a) Rejections of Claims 8-10

The Examiner has rejected claims 8-10 under 35 U.S.C. § 103(a) as being considered to be unpatentable over Tao, alone.

Applicant respectfully submits that claims 8-10 depend, directly or indirectly, from independent claim 1, and therefore, incorporate all of the limitations of claim 1, which Applicant has asserted is patentably distinguished over Tao.

Furthermore, to establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). (MPEP 2143.03). Applicant respectfully submits that, as discussed, above, Tao does not teach or suggest all the features of Applicant's invention as claimed. Specifically, as discussed above, Tao does not teach or suggest a sealant disposed between the substrate and the lid in a pattern with at least one break remaining subsequent to the substrate and lid being assembled together.

With regard to claims 8 and 10, the Final Office Action again states that Tao discloses disposing sealant in a rectangular pattern with at least one break in

the pattern. Again, the Applicant respectfully submits that these statements are in error. As already discussed at length, above, Tao discloses grooves in a cap or strengthening ring, and Tao discloses strengthening ring segments, but Tao makes no mention of breaks in a pattern of sealant (i.e., "adhesive"), whether rectangular or not.

Also, as previously discussed, Tao does not teach or suggest having thermal attach disposed between the inner surface of the lid and the die.

For at least these reasons, Applicant respectfully submits that claim 8-10 are patentably distinguished over Tao, and are in condition for allowance.

35 U.S.C. § 103(a) Rejection of Claim 12

The Examiner has rejected claim 12 under 35 U.S.C. § 103(a) as being considered to be unpatentable over Tao in view of Harper.

Applicant respectfully submits that claim 5 depends from independent claim 1, and therefore, incorporates all of the limitations of claim 1, which Applicant has asserted is patentably distinguished over Tao.

Furthermore, to establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). (MPEP 2143.03). Applicant respectfully submits that, as discussed, above, Tao does not teach or suggest all the features of Applicant's invention as claimed. Specifically, as discussed above, Tao does not teach or suggest a sealant disposed between the substrate and the lid in a pattern with at least one break remaining subsequent to the substrate and lid being assembled together. Also, as discussed above, Tao does not teach or suggest thermal attach disposed between the inner surface of the lid and the die. Harper also does not teach or suggest either of these two limitations, and

therefore, there can be no combination of Tao and Harper that teaches either of these two limitation. These deficiencies are not cured by the possibility of a teaching or suggestion by Harper of a substrate comprised of organic material.

For at least these reasons, Applicant respectfully submits that claim 12 is patentably distinguished over any combination of Tao and Harper, and is in condition for allowance.

Condition for Allowance

Applicant submits that all rejections and objections have been overcome and the present application is now in condition for allowance. If there are any additional charges or shortages related to the present communication, please charge our Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

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